



# State of Utah

DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

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June 9, 1999

TO: File

THRU: Joe Helfrich, Permit Supervisor *JH*

FROM: James D. Smith, Reclamation Specialist *ADS*

RE: Minor Coal Exploration - Response to Deficiencies of April 08, 1999, Canyon Fuel Company, LLC., Dugout Canyon Mine, ACT/007/039-99B, Folder #2, Carbon County, Utah

## SUMMARY:

Canyon Fuel Company's response to UDOGM's TA and Findings document of April 21, 1999 was received by UDOGM on May 19, 1999. The two deficiencies from in my April 08, 1999 TA have been adequately addressed, and no further deficiencies have been identified.

## TECHNICAL ANALYSIS:

### **PERFORMANCE STANDARDS**

Regulatory Reference R645-202-200, -202-235, -244

#### **Analysis:**

The Canyon Fuel Company representative or other persons qualified to identify zones of lost circulation, lost water, ground-water inflow, etc. will be on-site during drilling operations to record this information (p. 6).

Experience in the Book Cliffs indicates that the lower Blackhawk Formation and the strata immediately beneath are often saturated and may be in hydrologic connection. If water is present in these lower strata, some of the borings should be developed as piezometers to determine the pre-mining potentiometric surface and to monitor for changes as mining progresses through the area. Three nearby piezometers measure water levels in the Castlegate Sandstone, and there might be an opportunity to complete at least one of the exploratory borings as a piezometer in the Castlegate Sandstone.

The applicant has stated that drill holes are not planned to be advanced into the major sandstone units of the lower Blackhawk Formation; however, the applicant is prepared to complete borings as piezometers if significant ground-water flows are encountered in the

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Blackhawk, Castlegate, or other formations (p. 6).

**Findings:**

Information provided in the Application is considered adequate to meet the requirements of this section.

**RECOMMENDATION:**

Issue the exploration permit.

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